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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,330

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Patrick J. Maas

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EXAMINER

BURCH, MELODY M

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,330	Applicant(s) MAAS, PATRICK J.
	Examiner MELODY BURCH	Art Unit 3657

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) <input type="checkbox"/> Notice of Informal Patent Application
6) <input type="checkbox"/> Other: _____. |
|--|--|

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/22/11 has been entered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation of a helper spring 70 recited in claim 11 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Examiner notes that reference character "70" is not shown in figure 5 as described in the instant specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

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changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claim Objections

4. Claims 2, 3, and 6 are objected to because of the following informalities:

- In line 2 of claim 2 the phrase "flat portion" should be changed to --flat center portion-- to be consistent with the language in claim 1. A similar issue exists with the phrase "flat portion" in line 3 from the bottom of claim 6;
- In line 2 of claim 3 the phrase "3-6" should be changed to --3 to 6--. A similar issue exists in claim 11;
- Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claims 3, 7, 10, 11, and 12. The phrase "the leaf spring" in the last line of claim 3 and in lines 4 and 6 of claim 7 is indefinite since it is unclear as to which leaf spring Applicant intends to refer to since a plurality of leaf springs was previously recited. A similar issue exists with the limitation of "the first leaf spring end" recited in line 4 of claim 3, in claim 10 lines 5-6, in lines 6-7 and in line 5 from the bottom of claim 11, and lines 8-9 of claim 12.

Re: claim 3. The phrase "a helper spring" in line 2 is indefinite with respect to its dependency from claim 12 since claim 12 already recites a helper spring, it is unclear to the Examiner whether the helper spring recited in claim 3 is intended to be the same or different from that of claim 12.

Re: claim 6. The phrase "the springs" in line 5 from the bottom is indefinite. It is unclear to the Examiner whether the springs recited in line 5 of claim 6 are the leaf springs or the coil springs.

Re: claim 6. In line 4 from the bottom the phrase "said V W arch" fails to clearly set forth the metes and bounds of the claim.

Re: claim 7. In line 3 the phrase "said first end" is indefinite since more than one first end was previously recited. It is unclear to the Examiner as to which first end Applicant intends to refer to.

Re: claim 7. In line 5 from the bottom the phrase "cross member" is indefinite. It is unclear to the Examiner whether the cross member in claim 7 is intended to be the same or different from the cross piece recited in claim 1.

Re: claim 7. In line 5 from the bottom the phrase "said spring" is indefinite. It is unclear to the Examiner as to which spring Applicant intends to refer to since a plurality of springs was previously recited.

Re: claim 8. In line 2 the phrase "a coil spring" is indefinite. It is unclear to the Examiner whether the coil spring in claim 8 is intended to be the same or different from the earlier recited coil springs. If the coil spring is intended to be the same as the earlier recited coil springs, Examiner suggests the use of such language as --one of said coil springs--.

Re: claim 10. In lines 2-3 from the bottom of claim 10 the phrase "said helper spring" is indefinite. It is unclear to the Examiner as to which helper spring Applicant intends to refer to since a plurality of helper springs was previously recited.

Re: claim 11. In lines 2 and 12 from the bottom of claim 11 the phrases "said leaf spring" and "said coil spring" are indefinite since a plurality of leaf springs and coil springs were previously recited.

Re: claim 11. In line 5 from the bottom of claim 11 the phrase “a fixed helper spring end” is indefinite since it is unclear to the Examiner whether it is the same or different from the fixed end earlier recited.

Re: claim 12. In line 12 from the bottom of claim 12 the phrase “the spring” is indefinite since a plurality of leaf springs was previously presented. It is unclear as to which spring Applicant intends to refer to.

Re: claim 12. In line 10 from the bottom of claim 12 the phrase “said flat portion” lacks proper antecedent basis in the claim. Also, it is unclear to the Examiner whether the phrase “a substantially flat center portion” is intended to be the same or different from the flat portion earlier recited in claim 12.

The remaining claims are indefinite due to their dependency from one of the independent claims.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 4, 8, 9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5269497 to Barth in view of US Patent 3248745 to Gunlock and US Patent 6158815 to Sugie et al.

Re: claims 1, 2, 4, 8, 9, and 12. Barth shows in figures 1 and 2 a seat spring assembly comprising: a frame 10,12 having a first and a second frame end with first and second sides connected to first and second transverse frame ends as shown; a plurality of flat leaf springs 18 having leaf spring first ends connected to the first frame end and leaf spring second ends connected to the second frame end; each leaf spring having one V arch adjacent the leaf spring first end and one shaped arch adjacent the leaf spring second end; each leaf spring has a substantially flat center portion 32 extending longitudinally and aligned horizontally to define a seating support surface.

Barth is silent with regards to the shaped arch adjacent the second end of the leaf spring being a W arch.

Gunlock teaches in col. 2 lines 22-25 a seat spring assembly wherein each spring has a V arch adjacent a first end of the spring and a W arch adjacent a second end of the spring.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the shape of the arch at the opposite end of the leaf spring of Barth to have been a W, as taught by Gunlock, in order to provide a means of achieving a desired vertical deflection of the spring depending on the particular application.

Barth, as modified, is silent with regards to a cross piece and a plurality of coil springs as recited.

Sugie et al. teach in figure 8 the use of a seat spring assembly including a cross piece 24, the cross piece spanning and substantially perpendicularly interconnecting

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second ends of springs 22, the leaf spring second ends being attached to the cross piece, and a plurality of coil springs, the coil springs connecting the cross piece to a frame end 20 to transmit loads from the interconnected springs through the coil springs to the second frame end.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the spring assembly of Barth, as modified, to have included a cross piece as recited and a plurality of coil springs as recited, as taught by Sugie et al., in order to provide added resilience and support to accommodate the seat spring assembly user. As best understood with regards to claim 12, Barth, as modified, shows substantially parallel top and bottom surfaces and side edges to the same extent as Applicant's invention. See 112 rejections above.

Re: claim 4. Alternately, in *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) the court held that the configuration of a claimed object was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration is significant.

9. Claims 2-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5269497 to Barth in view of Gunlock and Sugie et al. and further in view of US Patent 2818105 to Herider et al.

Re: claims 2-4 and 7-11. Barth, as modified, as set forth in the rejection above of claim 1 is silent with regards to the helper spring.

Herider et al. teach in figure 2 the use of a helper spring 58.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the configuration of the leaf springs of Barth, as modified, to have included a helper spring, as taught by Herider et al., in order to provide a means of reinforcing the support for the seat. With regards to claim 7, Herider et al. teach the use of the mounting plates 22. It would have been obvious to one of ordinary skill in the art to have modified the assembly of Barth, as modified, to have included mounting plates, as taught by Herider et al., in order to connect the frame to the remaining portion of the seat.

Re: claim 5. Barth, as modified, teaches in figures 1 and 2 the limitation wherein there are 4 leaf springs for each seating, but is silent with regards to the dropped center position formed in the frame.

Herider et al. teach in figure 2 the frame including the dropped center position as shown.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the frame of Barth, as modified, to have modified the seat assembly of Barth, as modified, to have included a drop center position, as taught by Herider et al., in order to provide adequate space to resiliently accommodate a user for added comfort.

Re: claim 6. Barth, as modified, is silent with regards to the frame being U-shaped.

Herider et al. teach in figure 1 the use of what appears to be U-shaped frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the shape of the frame of Barth, as modified, to have been U-shaped, as taught by Herider et al., in order to provide a means of accommodating a particular seat shape. In *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) the court held that the configuration of a claimed object was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration was significant.

Response to Amendment

10. The declaration filed 6/22/11 has been noted and considered.

Response to Arguments

11. Applicant's arguments filed 6/22/11 have been fully considered but they are not persuasive.

With respect to the drawings, Applicant argues that reference number 70 is found at the bottom of the figure of the drawings submitted 4/10/06. There are a total of nine figures, so it is unclear which figure Applicant intends to refer to when he discusses element 70 being at the bottom of the figure. As best understood, Examiner took a closer look at figure 5 but still fails to locate element number "70".

Next, while Applicant acknowledges on pg. 12 of the Remarks that Gunlock describes a spring having V and W shaped supporting portions, Applicant maintains that Gunlock fails to discuss the presence of arches and fails to show W supporting portion. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are

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based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, the rejection involves a combination of references to yield the claimed invention. In particular, the base reference, Barth, satisfied the presence of shaped arches on opposite end regions of a leaf spring in a seat spring assembly. Therefore, it is unclear why Applicant argues on pg. 14 of the Remarks that Gunlock "teaches away from leaf springs or 'arches' as claimed". Gunlock is used solely for the teaching a having the oppositely arranged supporting portions of a spring in a seat spring assembly being in the form of a V-shaped supporting portion and a W-shaped supporting portion. Barth, combined with the teachings of Gunlock, yield a seat spring assembly including oppositely arranged supporting portions or arches made up of a V-shaped supporting portion or arch and a W-shaped supporting portion or arch. It is unclear why Applicant discusses "*assuming* that Gunlock teaches something 'W-shaped'" when Gunlock explicitly teaches the use of V and W-shaped supporting portions in the environment of a seat spring assembly. Examiner maintains that this teaching is properly used to modify the spring seat assembly of Barth which includes supporting portions in the form of arches.

In response to applicant's argument that Barth includes leaf springs and Gunlock includes wire springs and torsion bar portions, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of

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the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Examiner's rejection does not involve bodily incorporating the wire springs and torsion bars of Gunlock into the leaf spring seat assembly of Barth. Instead, Examiner's rejection utilizes the V and W-shaped supporting portion teaching of one seat spring assembly to modify the supporting portions or arches of another seat spring assembly.

With respect to the arguments regarding the use of the Sugie reference Examiner maintains that the base reference, Barth, already satisfied the leaf spring limitation. Sugie is used solely for teaching a seat assembly including elements 22 of a spring arrangement 12 having ends attached to a cross piece. In response to the argument on pg. 15 of the Remarks that Sugie's deck is like a grille to hold things up and not like a spring assembly to provide resilience, Examiner maintains that the assembly, including elements 22 whose ends are attached to the cross piece, is identified by Sugie as a spring 12. Springs by definition provide a level of resilience. Therefore, the statement at the bottom of pg. 15 of the Remarks that the Sugie deck is not a spring assembly to provide resilience is not factual as Applicant suggests. Spring 12 of Sugie both holds things up (supports) and provides resilience just as the spring assembly of the instant invention does.

12. Applicant's arguments with respect to claims 3, 7, and 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb
July 13, 2011

/Melody M. Burch/
Primary Examiner, Art Unit 3657

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